

Configuration Management Counter Proposal (Consolidation and Simplification)

The following version of the CM Counter Proposal contains the changes made at the January 1998 ACMS Status Meeting. It does not yet include changes to (1) improve the consistency in which selected words are used, (2) completely use of the term “document” in the MIL-STD-2549 sense, (3) replace parts/components/assemblies/end items with product structure elements, or (4) ensure use of the terms version and revision are as we want them (the action is still pending on how to use these terms).

The document is being kept in revision mode until these changes are made. At that time, it will be imported and maintained in our requirements database.

Several actions remain, but one in particular pertains to a possible **global version** of several requirements. This global requirement appears to deal with two topics (I may have these wrong): (1) creating and tracking change actions and audit actions, and (2) citing all possible relationships/links. The related requirements numbers from the CM Counter Proposal are C0009, C0015, C0021, C0031, and C0032. My notes indicate that C0004, C0007, C0020, and C0033 also may be involved, although it is not clear why.

Just a few thoughts to muddy the waters. I am not clear as to what is desired for this (or these) global requirement(s). Some of the places where it is mentioned seem to be concerned with “history” issues associated with linking changes and actions (or the closing of actions) to items (i.e., objects or product structure elements and documents). In other places it seemed to deal with linking attributes to objects. I think we need to be careful to distinguish between (1) relationships (links) between objects and (2) attributes that are related to objects (i.e., they describe the object). I think we want links between objects. We want to be able to have different types of links between objects and we want to be able to describe these object links with attributes. I don’t think we want to lump attribute relationships to objects in with requirements about object linking. To further muddy the water, however, Ed correctly points out that at this time, one cannot always distinguish between an attribute and an object. Often this is determined at the time of implementation. However, I think we may want the vendors to treat the relationship between documents and product structure elements differently from how we relate effectivity or other metadata to documents (or product structure elements). Just some thoughts on the topic.

New Req No	Requirement Category	Requirement Text	Notes
C0001	Configuration Planning: Manage Program Management Documents	ACMS shall provide the capability to identify, store, retrieve, and display Program Management documentation to include Acquisition Strategy, Configuration Management Plans, Audit Plans, Interface Control Agreements and other documentation associated with the management and control of w Weapon s Systems/end items/assemblies/components for the purpose of CM activity support.	The intent is to ensure the community (MSCs and vendors) understands that ACMS will provide access to more than just traditional engineering/product data.
C0002	Configuration Planning: Determine Contract Data Requirements	ACMS shall provide the capability to determine, <u>record, and display</u> the types of <u>MIL-STD-2549 data information packets</u> configuration documentation required as contract deliverables.	<u>MS-2549 flavor added at Jan 98 meeting.</u> <u>May be an incremental capability that is late in the ACMS life-cycle.</u>
C0003	Configuration Planning: Record Contract Data Requirements	ACMS shall have the capability to record, select and display contract data requirements.	<u>Deleted at Jan 98 meeting.</u>

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C0004	Configuration Planning: Record CM Activity Management Data	For each configuration management (CM) activity (e.g., change processing, configuration auditing, baselining, determining contract requirements, and product modifying, <u>and data acceptance</u>), ACMS shall record <u>CM activity data which may include the following:</u> the participants, reviewers, responsible activity name, location, Point of Contact, decision authority, phone numbers, <u>action items</u> , milestones, and related dates (e.g., decision date, audit date, <u>and</u> review suspense dates, etc.).	<u>Modified at Jan 98 meeting.</u> <u>Listing of data tempered with "... may include the following:"</u>
C0005	Configuration Planning: Generate CM Performance <u>Statistics</u> Measurements	ACMS shall generate performance <u>statistics for on-line display and in reports</u> measurements on CM activities, for the purpose of continuous improvement. Performance <u>statistics</u> measurements will provide <u>data</u> statistics that identifies any backlog, bottleneck and errors.	<u>Modified at Jan 98 meeting.</u> <u>Changed "performance measurements" to "performance statistics."</u>
C0006	Configuration Identification: Establish Configuration Items and Their Identifiers	ACMS shall provide the capability to establish a hierarchy of configuration items (CIs) and assign, record, and display CI identifiers at each level within the product structure. This will be done to facilitate the documentation, control and the support of the configuration items and their documentation and software to include digital data.	<u>Simplified at Jan 98 meeting.</u>
C0007	Configuration Identification: <u>Record Metadata and Assign Unique</u> Product and Data Identifiers	ACMS shall provide the capability to assign, record, and display <u>metadata and</u> unique identifiers for each weapon system/end item, component, assembly, part, material, software, and <u>document</u> data associated with an end item and prohibit duplication of identifiers even when there is no pre-existing identifier.	<u>Simplified at Jan 98 meeting.</u> <u>Also added "metadata."</u>
C0008	Configuration Identification: <u>Create Metadata Elements</u> Assign Alternative Product Identifiers	<u>ACMS shall provide the capability to create, update, and delete metadata elements associated with weapon systems/end items, components, assemblies, parts, materials, and documents.</u> ACMS shall provide the capability to assign alternative identifiers to CIs, end items, components, assemblies, materials, and parts such as National Stock Numbers, serial, lot, block, contract and contract line item number, and date of manufacture.	<u>Generalized at Jan 98 meeting.</u>

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C0009	Configuration Identification: Associate Products with Source Document	ACMS shall provide the capability to associate each component, assembly, part, material and software to a definitive source document.	Deleted at Jan 98 meeting. See C0015. Source document. A document that depicts the product. It could be a design document, a specification, standard, catalog, or any other document that adequately fully describes the product and is recognized as the primary descriptor of the product.
C0010	Configuration Identification: Associate Material and Software with Manufacturer	ACMS shall provide the capability to associate each material and software item to the manufacturer's name, address, and common name, and for software, also associate the version and release number or date. This is primarily used as a means of identifying items and materials that do not have a source document.	Deleted at Jan 98 meeting.
C0011	Configuration Identification: Identify Material	ACMS shall provide the capability to identify material by its design specification or standard name and up to six of the following additional modifiers: Category, Class, Color, Composition, Duty, Form, Grade, Size, Style, and Type. Example, steel, ASTM ***, 2150, 125K Rockwell hardness, etc). The name of the design specification or standard and the six parameters constitute the material design identification.	Deleted at Jan 98 meeting.
C0012	Configuration Identification: Designate Critical Items	ACMS shall provide the capability to designate a configuration item, part, component, assembly, material, software, or change action as critical to item safety, performance, or operation, or necessary to comply with regulatory requirements.	Deleted at Jan 98 meeting.
C0013	Configuration Identification: Identify Material Batches	ACMS shall provide the capability to identify each batch of material by the material design identification, manufacturer, and a unique product tracking identifier. The user will typically do this if a batch of material is critical to item safety, performance, or operation, or necessary to comply with regulatory requirements.	Deleted at Jan 98 meeting.
C0014	Configuration Identification: Assign Document Identifiers	ACMS shall provide the capability to assign, record, select, and display identifiers for referenced documents (i.e., accompanying documents and parts lists) and source document notes.	Deleted at Jan 98 meeting.

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C0015	Configuration Identification: <u>Establish Relationships</u> Associate Items	ACMS shall provide the capability to <u>establish relationships between and identify metadata about the relationship for items such as</u> relate pairwise the following items: configuration items, weapon system/end item, parts/components/assemblies, change actions, source documents, and reference documents. For example, CI to CI, CI to part, and so forth.	<u>Clarified at Jan 98 meeting.</u> <u>Question. Should audit actions be included (refer to C0021)?</u>
C0016	Configuration Identification: Identify Embedded Software	For each software item which is designed to be directly installed in hardware, ACMS shall provide the capability to identify, record, and display the software by the following: design source of the software, a unique identifier or title assigned by the design source, a document type code, a document representation identifier, and a version identifier or date.	Deleted at Jan 98 meeting.
C0017	Configuration Identification: Identify GFP, GFM, and GFE	In support of the acquisition process, ACMS shall provide the capability to designate any assembly, component, material, or part required for development or production as Government Furnished Property, Material, or Equipment (GFP, GFM, or GFE).	Deleted at Jan 98 meeting. <u>Action: Gayle w</u> ill be added this to the new Tech Loop Requirements
C0018	Configuration Identification: Identify Responsible Organizations	ACMS shall record and display the identity of the Current Document Change Authority (CDCA), the Government Lead Application Activity (GLAA), the Application Activity (AA), the originating activity, and the Custodian.	Deleted at Jan 98 meeting.
C0019	Configuration Identification: Identify Revisions/Versions of Data	ACMS shall provide the capability to record, identify, retrieve, and display the current revisions/versions and all previous revisions/versions of documents and software.	<u>Check PDM requirements. May be covered. Store versions.</u> <u>Note: MS-2549 definition of document includes product data and software. We need to determine if metadata is included as well.</u>

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C0020	Configuration Audit: Record Support Configuration Audit Activities	<p><u>ACMS shall support functional, physical, and incremental configuration audits by providing document support: recording pre-audit schedule, agenda, rules, participation, comments; audit dates, facilities, and assignment of audit actions; tracking the status and results of audit actions; and recording the history of all audit activity.</u></p> <p>ACMS shall support functional, physical, and incremental configuration audits through document support, assignment and tracking of audit actions until completion, and recording pre-audit schedule, agenda, audit dates, facilities, rules, participation, audit comments/results/status, responsible organization, and the history of all audit activity.</p>	<p>Incremental audit. An audit of a product relative to its configuration documentation that corresponds to an incremental baseline. Typically these occur in support of a re-procurement action <u>A partial audit of a product due to (1) the existence of multiple development efforts in support of a single end item, (2) the product is completed incrementally by the developer, or (3) the development effort is simply too large for completion of a single audit.</u></p> <p><u>Not clear that this captures all the audit workflow requirements (??).</u></p> <p><u>May want to include in global statements that allow for all documentation and relationships.</u></p>
C0021	<u>Configuration Audit:</u> <u>Establish Relationships</u> Record Configuration Audit Results	<p><u>ACMS shall provide the capability to establish relationships between audit actions and its related assembly/component/part or document.</u>ACMS shall provide the capability to record and display the results of the functional, physical, and incremental configuration audits.</p>	<p><u>It may be possible to eliminate this requirement if "audit actions" is added to C0015.</u></p>

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New Req No	Requirement Category	Requirement Text	Notes
C0022	Configuration Control: Record Baselines	ACMS shall provide the capability to record, store, query , retrieve, and display approved and updated configuration baselines (Functional Baseline (FBL), Allocated Baseline (ABL), Product Baseline (PBL), <u>Technical Baselines</u> , and incremental baselines)- as new changes are approved and incorporated into the system/item.	Incremental baseline. An approved release of configuration documentation on a given date that is not an FBL, ABL, or PBL. Typically these correspond to a configuration established for a re-procurement action. <u>Action:</u> Add definition of <u>Technical Baseline</u> from 2549 to glossary.
C0023 <u>C0023-NEW</u>	Configuration Control: <u>Baseline Compare</u>	<u>ACMS shall provide the capability to compare multiple views (e.g., CIs, parts, and documents) of baselined data and identify differences both on-line and in reports.</u>	<u>New requirement added at Jan 98 meeting.</u> <u>Question:</u> Should this requirement be grouped with configuration audits (see C0020 as revised)?
C0023	Configuration Control: Maintain Release Control	ACMS shall provide the capability to maintain release control of data for baseline management.	Deleted at Jan 98 meeting.
C0024	Configuration Control: Process Change Actions	ACMS shall provide the capability to identify, receive, review, and record the disposition <u>approval/disapproval</u> of proposed change actions, amended or revised proposed change actions, and variances to the configuration documentation and hardware or software configuration.	<u>Minor edit at Jan 98 meeting.</u> <u>MSC Action:</u> Consider possible wording for order of change action implementation.
C0025	Configuration Control: <u>View</u> Retain Change History	ACMS shall provide the capability to view the history of change actions <u>proposals</u> for a particular product/ item to include change descriptions, rationales, and approval/disapproval decisions.	<u>Generalized at Jan 98 meeting.</u>
C0025B	Configuration Control: Provide Change Coordination Workflow	ACMS shall provide or interface with a workflow manager for processes such as coordination of proposed changes and variances, and monitor the process to ensure timely responses.	Deleted at Jan 98 meeting.

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C0026	Configuration Control: Provide CCB Support	ACMS shall record, retrieve, and display Configuration Control Board (CCB) <u>information such as</u> membership; members of interfacing activities; all change proposals, their originators, their disposition and the date of disposition; CCB Directives; and descriptions of any action items.	<u>Minor edit at Jan 98 meeting.</u>
C0027	Configuration Control: Record Change Action Status	ACMS shall record, retrieve, and display status of all approved change actions; effectivity, implementing organization, and, where multiple ECPs exist, the order of implementation.	<u>Deleted at Jan 98 meeting.</u>
C0028	<u>Configuration Management</u> Status Accounting: <u>Process Data Information Packets</u> Capture MIL STD 2549 CM Information	<u>ACMS shall provide the capability to accept, validate, vault, retrieve, modify, archive, and produce data information packets as defined in MIL-STD-2549, dated 30 June 1997 and the November 1997 Errata Sheet.</u> ACMS shall provide for creation, acceptance, validation, vaulting, retrieving, modifying and archiving CM information compliant with MIL STD 2549, dated 30 June 1997 and Errata sheet, dated November 1997.	<u>Clarified at Jan 98 meeting.</u> <u>Move to beginning.</u>
C0029	Status Accounting: Provide Implied MIL STD 2549 Functional Requirements	ACMS shall provide the capability to accomplish all of the General Functional and Detail Requirements implied in Chapters 4 and 5 of MIL STD 2549. EIA/IS 649 and MIL HDBK 61 may be used as a reference on how to perform Configuration Management.	<u>Deleted at Jan 98 meeting.</u>
C0030	Status Accounting: Record Tasking Documentation Identity	ACMS shall provide the capability to record, retrieve, and display the identity of the tasking document for required upgrade, retrofit, or modification actions.	<u>Deleted at Jan 98 meeting.</u> <u>Covered by C0007.</u> Tasking document. The modification instruction (MWO/DMWR) corresponding to an approved change action. Mod Work Order/Depot Maintenance Work Requirement.
C0031	Status Accounting: Record Field Configuration Data	ACMS shall provide the capability to record, select, and display "as built and as modified" configurations resulting from the installation and removal of all components, assemblies, and parts <u>(e.g., serialized items, lots, and batches)</u> critical to the safety, performance, or operation.	<u>Modified at Jan 98 meeting.</u> <u>Note to Trish - This may fall under the global requirement to create and track CM kind of activities.</u>

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C0032	Status Accounting: Record Effectivity	ACMS shall provide the capability to record and report the effectivity or range of effectivity and installation status of configuration changes to all systems/CIs at all locations, during design, production, modification, retrofit, and maintenance.	Deleted at Jan 98 meeting. See the new global requirement, C0007, and C0004. Note to Trish - This may fall under the global requirement to create and track CM kind of activities.
C0033	Status Accounting: Provide Reports Configuration Data	ACMS shall provide reports essential for performing engineering/logistics analysis, procurement of spares , configuration baselines, performing comparison analysis, and status of the system configuration throughout the life cycle.	Deleted at Jan 98 meeting. Added logistics analysis and deleted procurement of spares at Jan 98 meeting. Note to Trish - This may fall under the global requirement to create and track CM kind of activities.
			<u>Action:</u> Gayle Booker to- investigate a requirement to support disposal and obsolescence.
			<u>Action:</u> Commands to specify required time to recover from a catastrophic. This would go under the Ownership and Support section.
C0034-NEW	??????????	ACMS shall be year 2000 compliant.	This probably belongs under Ownership and Support.
C0034	<u>Data Acceptance: Support Data Review and Commenting</u>	<u>ACMS shall allow for any data item or document submitted in response to a contract requirement or for Government acceptance to be reviewed on-line, and be commented on prior to acceptance.</u>	<u>Deleted Jan 98 meeting.</u>

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